RESPONSE TO COMMENTS on the

Draft Supplemental Feasibility Study for the Whatcom Waterway Site

and

Draft Supplemental Environmental Impact Statement for the Bellingham Bay Comprehensive Strategy

October 2002

Introduction

In March 2002, the ***Draft Supplemental Feasibility Study for the Whatcom Waterway Site*** and ***Draft Supplemental Environmental Impact Statement for the Bellingham Bay Comprehensive Strategy*** were made available for public review and comment. Both documents evaluate a new remedial alternative for the Whatcom Waterway site that includes disposal of contaminated sediments in a portion of Georgia-Pacific's Aerated Stabilization Basin (ASB). Georgia-Pacific's ASB was constructed in 1978 to provide secondary wastewater treatment, primarily for its pulp mill operations.

In late 2001, following closure of the pulp mill and associated operations, Georgia-Pacific determined that 21 acres of the 29-acre ASB could potentially be used as a disposal facility for contaminated sediments dredged from the Whatcom Waterway site and other sites in Bellingham Bay.

Because the ASB was not an available sediment disposal option when the original Remedial Investigation/Feasibility Study and Environmental Impact Study were issued, a Supplemental Feasibility Study and Environmental Impact Statement were developed to evaluate this new alternative.

The supplemental documents were available for public review and comment from March 11, 2002 through April 24, 2002.

Public involvement activities related to these documents included:

- Distribution of a fact sheet to approximately 1,000 people in Bellingham and other interested parties.
- Publication of a paid display ad in the *Bellingham Herald* on March 10, 2002.
- Publication of a notice in the Washington State Site Register, dated March 5, 2001.
- Posting of the documents on the Ecology web.
- Providing copies of the documents through information repositories at Ecology and at the Bellingham Public Library.
- Open house and public meeting on March 21, 2002.

There were no changes to the documents as a result of comments received.

Comments Received and Ecology Responses:

May 10, 2002

Department of Ecology, NWRO
Lucy McInerney
3190 160th Ave.SE
Bellevue, WA 98008-5452

Subject: **Comments on the Bellingham Bay Comprehensive Strategy, Draft Supplemental Environmental Impact Statement**

Dear Ms. McInerney:

The Department of Natural Resources (DNR) appreciates the opportunity to provide input on the subject document. Due to the DNRs involvement on the work group and subcommittees and the consequent opportunities for direct input to the comprehensive strategy process, our comments will be kept general and brief.

As noted on page 3-41 of the *Bellingham Bay Comprehensive Strategy, Final Environmental Impact Statement* (October, 2000), "DNR establishes and manages harbor areas for landings, wharves, streets and other conveniences of navigation and commerce".

1 However, this is only one function within the Departments stewardship goals which strive to: *foster water-dependent uses, ensure environmental protection, encourage direct public use and access, promote production on a sustainable basis of renewable resources, and generate income consistent with the other goals.*

2 The Supplemental EIS creates a new opportunity to utilize Georgia Pacific's aerated stabilization basin as a disposal site for contaminated sediments that would otherwise be permanently contained on state owned aquatic lands (SOAL). Although armoring will still be necessary adjacent to the Cornwall Landfill, this will allow greater flexibility in future uses of the site.

3 DNR would like to ensure that as part of this public process, sufficient analysis is performed to address potential harbor line adjustments related to future land use and remediation work. This analysis will be necessary to determine the type and amount of harbor area needed to meet the long-term needs of water dependent commerce and navigation. In addition to commerce and navigation, harbor area analysis must also consider impacts to the economy, Native American treaty rights, public access and environmental impacts.

Thank you for your consideration. DNR looks forward to continued participation in the Bellingham Bay Comprehensive Strategy.

Sincerely,

Joanne Snarski
DNR Aquatic Land Manager

C: Fran McNair
David Roberts

Response to Comments:

Response to Joanne Snarski, Washington Department of Natural Resources

1) Comment noted.

2) Comment noted.

3) Comment noted. Continued coordination with and participation of DNR and other interested parties is expected and encouraged.

816 16th Street
Bellingham, WA 98225
360-647-2531

April 3, 2002

Ms. Lucy McInerney
Washington Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008

Re: Draft Supplemental Feasibility Study for the Whatcom Waterway Site Bellingham, Washington

Dear Ms. McInerney:

On March 21, 2002 I attended the open house and public meeting in Bellingham regarding the Draft Supplemental Feasibility Study for the Whatcom Waterway Site. I subsequently read that document and have comments and suggestions to improve the document.

In my opinion, Alternative J (Georgia-Pacific Aerated Stabilization Basin (ASB) disposal option) is a well-considered, cost-effective disposal option protective of human health and the environment, and should be implemented if additional technical investigations prove the viability
1 of this remedial alternative. However, I caveat my opinion pending the resolution of one technical comment regarding Alternative J: the Draft Supplemental Feasibility Study does not address how to keep the dredged sediments anoxic.

In his presentation on March 21, Mr. Clay Patmont of Anchor Environmental stated that leachate testing of sediments indicated that mercury, phenolics, and other contaminants would not leach into surrounding waters. Mr. Patmont stated that mercury would be stable in the ASB because of the anoxic conditions created by a high water table in the ASB. Nowhere in the Draft Supplemental FS is there mention of the requirement to keep the dredged sediments anoxic to prevent mercury from leaching. There is no analysis in the Draft Supplemental FS of the degree
2 of saturation expected in the ASB under natural precipitation, evapotranspiration, and groundwater inflow/outflow conditions. Nor is there an analysis of whether the degree of saturation would be adequate to maintain anoxic conditions in the ASB during likely climatic fluctuations. Why this is important is the fact that all landfills, whether lined or unlined, leak. It is possible that mercury may leach from the ASB to surrounding soil and water if the dredged sediments are oxygenated.

I have two suggestions for Ecology, Georgia-Pacific, and Anchor Environmental to address the issue of potential mercury mobilization from the ASB via leachate:

1. It is stated on page 33 of the Draft Supplemental FS that site-specific thin-layer column leachate testing will be performed on sediment samples to assess the long-term water quality of the disposal site. The testing should be performed under both anoxic and oxic conditions to evaluate potential contaminant mobility. If contaminants do not leach under either anoxic or oxic conditions, then sediment confinement in the ASB should be protective of surrounding soil and water regardless of the water table position.

2. The long term position of the water table in the ASB can be evaluated by a water balance analysis that accounts for precipitation, runoff from the cap, evapotranspiration from the cap, net infiltration through the cap, porosity of the confined sediments, and leakage through the bottom and sides of the ASB. The EPA HELP model can be used to evaluate most of the
3 water balance terms. If the calculated water table under natural conditions in the ASB is higher than the confined sediments, then this disposal option would be viable. If not, then it may be necessary to perpetually sustain an anoxic water table in the ASB by pumping. Perpetually pumping water into the ASB would greatly alter the cost effectiveness of Alternative J.

Please feel free to contact me if you have any questions regarding this letter.

Sincerely,

Norm Nielsen
Washington Licensed Hydrogeologist Number 327

Response to Mr. Norm Neilsen.

1) Comment noted. The technical issues surrounding the maintenance of the site conditions are addressed during the design phase of cleanup projects. During the design phase, a ***cleanup action plan*** and ***engineering design report*** will be developed to address these issues. Both of these documents will be made available for public review and comment. If this alternative is selected, design, construction and ongoing management of the site will be evaluated to adequately ensure continued protection of human health and the environment.

2) Detailed leaching studies are being performed on sediments collected from the more highly contaminated areas of the site, and represent sediments that would generate the highest leachate mercury concentrations. The pre-remedial design leaching tests are currently being performed using the Pancake Column Leach Test (PCLT; formerly known as the thin-layer column leach test) using procedures developed by the U.S. Army Corps of Engineers and accepted for contaminated sediment disposal evaluations by Ecology, the U.S. Environmental Protection Agency (EPA), and other regulatory agencies. Consistent with regulatory guidance, leaching tests are normally run under anaerobic conditions. This is particularly appropriate since containment design will minimize atmospheric oxygen penetration and maximize anaerobic conditions. Anaerobic conditions will preserve the very large sulfide reserves present in the sediments. Again, if this alternative is selected, the design will be developed and further evaluated to adequately ensure continued protection of human health and the environment. (See also Hanners #1 and Johnson and Tolchin #5).

3) Comment noted (refer to comments 1 and 2 above).

Supplemental Feasibility Study,
Whatcom Waterway &
Supplemental Environmental Impact Statement,
Bellingham Bay Comprehensive Strategy

WASHINGTON STATE DEPARTMENT OF ECOLOGY

Comment Form

This is an invitation for comments on the following documents: ***Draft Supplemental Feasibility Study*** for the Whatcom Waterway Site and ***Draft Supplemental Environmental Impact Statement*** for the Bellingham Bay Comprehensive Strategy. Please send your comments by April 24, 2002 (address on reverse).

Name and address optional

Name....thomas...o'moore.....
Address....509...CYPRESS...RD.....
City...BELLINGHAM..... Zip Code .....98225.....
E-mail Address.....thosmo@hotmail.com.....

1. The documents are designed to evaluate the feasibility and potential adverse environmental impacts of a new sediment remediation alternative for the Whatcom Waterway site. Do you have any comments about whether the evaluation performed in these documents is accurate and/or complete? If so, please describe.

TO GIVE YOU SOME FEED BACK: I WOULD PREFER THAT
1 THE MUD TAILINGS FROM THE WATERWAY DREDGING BE PUT
IN THE RETENTION POND THAT GP IS OFFERING, IT SEEMS THE
2 BEST LONGTERM SOLUTION. ALSO I PREFER USING THE HYDRO-
VACUUM METHOD OF EXTRACTION AS PROPOSED. IN THE END
3 AFTER THE AREA IS CAPPED WE SHOULD VEGETATE THE AREA

thanks for an informative meeting

thomas o'moore

Response to Mr. Thomas O'Moore.

1) Comment noted.

2) Comment noted. If this alternative is selected, a more thorough evaluation of the potential for utilization of suction dredging will be performed in the design phase.

3) Comment noted. If this alternative is selected, the potential beneficial uses will be reviewed. It should be noted that this property is currently owned by the Georgia-Pacific Corporation.